

Translation

PATENT COOPERATION TREATY

PCT/JP2003/011103



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PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

25 FEB 2005

Applicant's or agent's file reference 15-101	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/JP2003/011103	International filing date (day/month/year) 29 August 2003 (29.08.2003)	Priority date (day/month/year) 30 August 2002 (30.08.2002)	
International Patent Classification (IPC) or national classification and IPC A61H 3/00, F16H 1/36, 1/28, B25J 19/00			
Applicant HONDA GIKEN KOGYO KABUSHIKI KAISHA			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 19 March 2004 (19.03.2004)	Date of completion of this report 30 November 2004 (30.11.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/011103

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished

- ☐ the description:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____

- ☐ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____

- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International Publication No.

PCT/JP03/11103

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims

1-6

YES

Claims

NO

Inventive step (IS)

Claims

YES

Claims

1-6

NO

Industrial applicability (IA)

Claims

1-6

YES

Claims

NO

2. Citations and explanations (Rule 70.7)

Document 1: JP, 7-163607, A (Tokyo R&D Co., Ltd.), 27 June, 1995 (27.06.95), full text, all drawings (Family: none)

Document 2: JP, 4-501227, A (David Ellis Hensley), 5 March, 1992 (05.03.92), full text, all drawings, & US, 4865024, A, & WO, 90-04371, A

Document 3: JP, 3-107650, A (Komatsu Ltd.), 8 May, 1991 (08.05.91), full text, all drawings (Family: none)

Document 4: JP, 53-7574, B2 (Toyota Motor Corp.), 18 March, 1978 (18.03.78), full text, all drawings (Family: none)

Document 5: JP, 3-121336, A (Nissan Motor Co. Ltd.), 23 May, 1991 (23.05.91), full text, all drawings (Family: none)

Document 6: Microfilm of the specification and drawings annexed to the written application of Japanese Utility Model Application No. 157420/1984 (Laid-open No. 73861/1986), (NEC Home Electronics, Ltd.), 19 May, 1986 (19.05.86), full text, all drawings (Family: none)

Document 7: JP, 176480, C2 (Tetsuo Nagura), 5 December, 1949 (05.12.49), full text, all drawings (Family: none)

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V2

Claims 1 and 2

Documents 1 and 2 disclose a speed reducer for a walk assistance apparatus to reduce the rate of revolution of an input shaft driven by a motor to be transmitted to an output shaft connected with leg joints, to assist the user to walk by extending or bending his or her leg joints.

Documents 3-6 disclose a speed reducer having first and second planetary gear mechanisms, P1 and P2, wherein the second planetary gear mechanism P2 is disposed outside the first planetary gear mechanism P1 in the radial direction.

Accordingly, there would be no particular difficulty in adopting a speed reducer that has first and second planetary gear mechanisms, P1 and P2, wherein the second planetary gear mechanism P2 is disposed outside the first planetary gear mechanism P1 along P1's radial direction, for the speed reducer for a walk assistance apparatus described in document 1 or 2.

Claims 3 and 6

Documents 1 and 2 disclose a speed reducer for a walk assistance apparatus to reduce the rate of revolution of an input shaft driven by a motor to be transmitted to an output shaft connected with leg joints, to assist the user to walk by extending or bending his or her leg joints.

Documents 3-5 disclose a speed reducer having first, second and third planetary gear mechanisms, P1-P3, wherein the second planetary gear mechanism P2 is disposed outside the first planetary gear mechanism P1 along P1's radial direction and the third planetary gear mechanism P3 is disposed outside the first planetary gear mechanism P1 along the direction indicated by the shape of L to the axial line of P1.

Accordingly, there would be no particular difficulty in adopting a speed reducer that has first, second and third planetary gear mechanisms, P1-P3, wherein the second planetary gear mechanism P2 is disposed outside the first planetary gear mechanism P1 along P1's radial direction, and the third planetary gear mechanism P3 is disposed outside the first planetary gear mechanism P1 along the direction indicated by the shape of L to the axial line of P1, for the speed reducer for a walk assistance apparatus described in document 1.

Claims 4 and 5

Documents 1 and 2 disclose a speed reducer for a walk assistance apparatus to reduce the rate of revolution of an input shaft driven by a motor to be transmitted to an output shaft connected with leg joints, to assist the user to walk by extending or bending his or her leg joints.

Document 7 discloses a speed reducer having first, second and third planetary gear mechanisms, P1-P3, wherein the second planetary gear mechanism P2 is disposed outside the first planetary gear mechanism P1 along P1's radial direction and the third planetary gear mechanism P3 is disposed outside the second planetary gear mechanism P2 along P2's radial direction.

Accordingly, there would be no particular difficulty in adopting a speed reducer that has first, second and third planetary gear mechanisms, P1-P3, wherein the second planetary gear mechanism P2 is disposed outside the first planetary gear mechanism P1 along P1's radial direction, and the third planetary gear mechanism P3 is disposed outside the second planetary gear mechanism P2 along P2's radial direction, for the speed reducer for a walk assistance apparatus described in document 1 or 2.